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Beckman et al.(10) **Pub. No.: US 2017/0174320 A1**(43) **Pub. Date: Jun. 22, 2017**(54) **PROPELLER BLADE TRAILING EDGE
FRINGES FOR IMPROVED SOUND
CONTROL**2201/128 (2013.01); B64C 2201/108
(2013.01); B64C 2201/024 (2013.01)(71) Applicant: **Amazon Technologies, Inc.**, Seattle,
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ABSTRACT(72) Inventors: **Brian C. Beckman**, Newcastle, WA
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Allan Ko, Seattle, WA (US)(21) Appl. No.: **14/975,274**(22) Filed: **Dec. 18, 2015****Publication Classification**(51) **Int. Cl.****B64C 11/18** (2006.01)**B64C 27/06** (2006.01)**B64C 11/20** (2006.01)(52) **U.S. Cl.**CPC **B64C 11/18** (2013.01); **B64C 11/20**
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Sounds are generated by an aerial vehicle during operation. For example, the motors and propellers of an aerial vehicle generate sounds during operation. Disclosed are systems, methods, and apparatus for actively adjusting the position of one or more propeller blade treatments of a propeller blade of an aerial vehicle during operation of the aerial vehicle. For example, the propeller blade may have one or more propeller blade treatments that may be adjusted between two or more positions. Based on the position of the propeller blade treatments, the airflow over the propeller is altered, thereby altering the sound generated by the propeller when rotating. By altering the propeller blade treatments on multiple propeller blades of the aerial vehicle, the different sounds generated by the different propeller blades may effectively cancel, reduce, and/or otherwise alter the total sound generated by the aerial vehicle.

